

INTERSECTION 133

Prairie Avenue/Redondo Beach Boulevard Improvement(s)

Forecast Near-Term Conditions Intersection LOS Summary

| | Weekday AM Peak Hour | Weekday Mid-Day Peak Hour | Weekday PM Peak Hour | Weekend Mid-Day Peak Hour |
|------------------------|-------------------------|------------------------------|-------------------------|------------------------------|
| Without Improvement(s) | 49.0 – D | 43.7 – D | 71.6 – E | 40.3 – D |
| With Improvement(s) | 41.1 – D | 39.0 – D | 50.6 – D | 36.5 – D |

Note: Delay shown in seconds per vehicle; Deficient intersection operation shown in ***bold italics***.

Recommended Improvements:

- Widen the northbound Prairie Avenue approach from one left-turn lane, two through lanes, and one right-turn lane to consist of two left-turn lanes, two through lanes and one right-turn lane.
- Widen the southbound Prairie Avenue approach from one left-turn lane, two through lanes, and one right-turn lane to consist of two left-turn lanes, two through lanes and one right-turn lane.
- Implementation of the recommended improvements identified at the Prairie Avenue/Redondo Beach Boulevard intersection will require City acquisition of approximately 12-feet of right-of-way on the northbound and southbound Prairie Avenue approaches and departures to provide adequate alignment of northbound and southbound Prairie Avenue through lanes.
- Additionally, widen the eastbound Redondo Beach Boulevard approach from one left-turn lane, two through lanes, and one right-turn lane to consist of two left-turn lanes, two through lanes, and one right-turn lane.
- Implementation of the improvements identified at the Prairie Avenue/Redondo Beach Boulevard intersection will require City acquisition of approximately 12-feet of right-of-way on the eastbound Redondo Beach Boulevard approach and departure to provide adequate alignment of eastbound Redondo Beach Boulevard through lanes.

**CITY OF TORRANCE CITYWIDE TRAFFIC ANALYSIS MITIGATION MEASURES
PRELIMINARY COST ESTIMATES**

Location: Intersection 133: Prairie Avenue/Redondo Beach Boulevard

Date: 4/1/2008

Mitigation: Widen the northbound Prairie Avenue approach to consist of two left-turn lanes, two through lanes and one right-turn lane. Widen the southbound Prairie Avenue approach to consist of two left-turn lanes, two through lanes and one right-turn lane.

Estimated by: D.Chanley

| | DESCRIPTION OF WORK | UNIT PRICE | QUANTITY | COST |
|----|---|----------------------|----------|------------------|
| 1 | Mobilization | 10.00% (\$2,000 Min) | | \$29,000 |
| 2 | Clear & Grub | \$10,000.00 / AC | | \$0 |
| 3 | Remove Striping | \$10.00 / LF | 1,785 | \$17,900 |
| 4 | Remove Curb & Gutter | \$15.00 / LF | 220 | \$3,000 |
| 5 | Remove Median Curb | \$30.00 / LF | | \$0 |
| 6 | Remove PCC Sidewalk | \$3.50 / SF | 1,550 | \$5,000 |
| 7 | Remove Pavement | \$4.00 / SF | | \$0 |
| 8 | Remove Wall | \$50.00 / LF | 67 | \$3,000 |
| 9 | Remove Channel | \$15.00 / LF | | \$0 |
| 10 | Remove/Replace Chain Link Fence | \$50.00 / LF | | \$0 |
| 11 | Remove/Replace Wrought Iron Fence | \$10.00 / LF | | \$0 |
| 12 | Remove/Replace Survey Monument | \$800.00 / EA | | \$0 |
| 13 | Reconstruct Metal Beam Guard Rail | \$70.00 / LF | | \$0 |
| 14 | Remove & Relocate Tree | \$3,000.00 / EA | | \$0 |
| 15 | Sawcut | \$1.00 / LF | 220 | \$200 |
| 16 | Relocate Street Light | \$7,500.00 / EA | | \$0 |
| 17 | Relocate Traffic Signal System | \$300,000.00 / EA | 0.25 | \$75,000 |
| 18 | Signal Phase Modification | \$10,000.00 / EA | | \$0 |
| 19 | Relocate Freeway Sign (2 post) | \$1,000.00 / EA | | \$0 |
| 20 | Relocate Sign (1 Post) | \$300.00 / EA | | \$0 |
| 21 | Reconstruct Overhead Sign | \$50,000.00 / EA | | \$0 |
| 22 | Relocate Call Box | \$2,000.00 / EA | | \$0 |
| 23 | Relocate Power Pole | \$25,000.00 / EA | | \$0 |
| 24 | Relocate Catch Basin | \$9,000.00 / EA | 1 | \$9,000 |
| 25 | Relocate Fire Hydrant | \$2,500.00 / EA | | \$0 |
| 26 | Relocate Bus Shelter | \$2,000.00 / EA | | \$0 |
| 27 | Relocate Bus Bench | \$600.00 / EA | | \$0 |
| 28 | Relocate Monument Sign | \$5,000.00 / EA | | \$0 |
| 29 | Relocate Utility Boxes | \$500.00 / EA | | \$0 |
| 30 | Relocate Main Water Valve | \$10,000.00 / EA | | \$0 |
| 31 | Relocate Utility Vault | \$3,000.00 / EA | 1 | \$3,000 |
| 32 | Adjust Manhole to Grade | \$1,000.00 / EA | 1 | \$1,000 |
| 33 | Adjust Water Meter | \$2,000.00 / EA | | \$0 |
| 34 | Adjust Water Valve | \$500.00 / EA | | \$0 |
| 35 | Adjust Minor Above Ground Utilities | \$500.00 / EA | | \$0 |
| 36 | Modify Driveway | \$5,000.00 / EA | 5 | \$25,000 |
| 37 | Earthwork | \$40.00 / CY | 240 | \$10,000 |
| 38 | Construct PCC Pavement | \$15.00 / SF | | \$0 |
| 39 | Construct AC Pavement | \$14.00 / SF | 1,275 | \$18,000 |
| 40 | Construct AC Overlay | \$3.00 / SF | | \$0 |
| 41 | Construct Slurry Seal | \$0.25 / SF | | \$0 |
| 42 | Construct Striping & Marking | \$4.00 / LF | 1,785 | \$7,200 |
| 43 | Construct AC Dike | \$7.00 / LF | | \$0 |
| 44 | Construct Curb & Gutter | \$40.00 / LF | 190 | \$8,000 |
| 45 | Construct Concrete Barrier | \$50.00 / LF | | \$0 |
| 46 | Construct Median Curb | \$20.00 / LF | | \$0 |
| 47 | Construct Median Concrete | \$10.00 / SF | | \$0 |
| 48 | Construct Median/Parkway Landscaping | \$10.00 / SF | | \$0 |
| 49 | Construct PCC Sidewalk | \$10.00 / SF | 1,010 | \$10,000 |
| 50 | Construct Access Ramp | \$5,000.00 / EA | 1 | \$5,000 |
| 51 | Construct Retaining Wall | \$50.00 / SF | | \$0 |
| 52 | Construct Storm Drain Main | \$100.00 / LF | | \$0 |
| 53 | Construct RCB | \$1,000.00 / LF | | \$0 |
| 54 | Construct Headwall | \$5,000.00 / EA | | \$0 |
| 55 | Construct Concrete V-Ditch | \$15.00 / LF | | \$0 |
| 56 | Construct Bridge Widening | \$500.00 / SF | | \$0 |
| 57 | Construct Wall | \$70.00 / LF | 67 | \$5,000 |
| 58 | Building/Structure Demolition (1-Story Bldg) | \$10.00 / SF | | \$0 |
| 59 | Traffic Control (\$5,000 min) | 8% | 1 | \$16,000 |
| 60 | Drainage Items | 10% | 1 | \$22,000 |
| 61 | SWPPP Plan and Implementation | 6% | 1 | \$13,524 |
| | CONSTRUCTION SUBTOTAL | | | \$285,824 |
| | Right-of-Way | 100 / SF | 655 | \$66,000 |
| | Right-of-Way Management | 5 / % | | \$3,000 |
| | RIGHT-OF-WAY SUBTOTAL | | | \$69,000 |
| | TOTAL CONSTRUCTION & RIGHT-OF-WAY COST | | | \$355,000 |
| | Preliminary Project Development (10% of total Construction/RW cost) | | | \$36,000 |
| | Design Engineering/Administration Costs (15% of total Construction/RW cost) (\$10,000 min) | | | \$54,000 |
| | Construction Engineering Costs/Administration (10% of total Construction/RW cost) (\$5,000 min) | | | \$36,000 |
| | Contingency (20% of Total Construction/RW cost) (\$5,000 min) | | | \$71,000 |
| | TOTAL PROJECT COSTS | | | \$552,000 |